

On an alternative to long A'-movement in German and Dutch

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This paper provides an analysis of an alternative strategy to A'-movement in both German and Dutch where the extracted constituent is preceded by a preposition and a coreferential pronoun appears in the extraction site. The construction has properties of both binding and movement: Whereas reconstruction effects suggest movement out of the embedded clause, there is strong evidence that the operator constituent is linked to an A-position in the matrix clause; this paradox is resolved by assuming a Control-like approach that involves movement from the embedded clause into a theta-position in the matrix clause with subsequent short A'-movement. The coreferential pronoun is interpreted as a resumptive heading a Big-DP which hosts the antecedent in its specifier.

1. Introduction: restricted long A'-movement

It is a well-known fact about Standard German that long A'-movement is not available to all speakers. For many, the long extractions in (1), instantiating long wh-movement, long relativization, and long topicalization are ungrammatical:

- (1) a. ***Wen_i** glaubst du, dass Petra **t_i** liebt?
 who:ACC think you that Petra loves
 'Who do you think that Petra loves?'
- b. *ein Maler, **den_i** er glaubt, dass Petra **t_i** mag
 a painter who:ACC he thinks that Petra likes
 'a painter who he thinks Petra likes'
- c. ***Den Maler_i** glaubt er, dass Petra **t_i** mag.
 the:ACC painter thinks he that Petra likes
 'The painter he thinks that Petra likes.'

It is frequently assumed that the distribution is best captured in terms of a North-South division, the speakers in the North rejecting long A'-movement, while those from the South make liberal use of it. Whether this is actually true has become difficult to verify due to the increased mobility in recent decades. What is certainly true is the fact that the dialects spoken in Upper German (Swabian, Bavarian, varieties of Swiss German) are more liberal. Even conservative descriptive grammars (like e.g. Weber 1965) list examples of long A'-movement (referred to as *Satzverschränkung* 'sentence interleaving'). It would therefore be little surprising if this dialectal background were to influence speakers when they (attempt to)

speak the Standard language.¹ Whether this is actually true is something I will not try to verify in this paper. I will also not attempt to give an account of the lack of long A'-movement for many speakers. My concerns will turn out to be orthogonal to these facts.

Needless to say, the lack of long A'-movement constitutes a functional gap one would expect to be filled by alternative strategies. This is indeed the case. For wh-movement, there is the scope-marking construction, see e.g. McDaniel (1986) and Lutz et al. (2000):

- (2) **Was** glaubt Peter, **wen_i** du gestern **t_i** getroffen hast?
 what thinks Peter who:ACC you yesterday met have
 'Who does Peter think that you met yesterday?'

The term alternative strategy might be somewhat misleading in this context because Scope Marking is also available to speakers that allow long wh-movement. Whether it is actually available in all varieties of German (including dialects) is unclear. Swiss speakers, for instance, can use this construction, but whether it is actually part of their dialect grammar is unclear; the use of the scope marking construction might simply be due to Standard German influence.

Another alternative strategy is represented by extraction from V2-complement clauses:

- (3) a. **Wen_i**, glaubst du, liebt Petra **t_i**?
 whom think.2s you loves Petra
 'Who do you think Petra loves?'
 b. **Den Maler_i**, glaube ich, mag Petra **t_i**.
 the:ACC painter think I likes Petra
 'The painter I think Petra likes.'

This strategy is possible for wh-movement and topicalization, but not for relativization. It is arguably available to all speakers of any German variety and probably the preferred construction. Therefore, it is strictly speaking only an alternative for speakers of restrictive varieties.²

There is a third "alternative", and this is the topic of this paper: In this construction, the preposition *von* 'of' precedes the (putatively) extracted phrase and a coreferential pronoun occurs in the dependent clause in the position of the (alleged) extraction site:

- (4) a. **Von welchem Maler_i** glaubst du, dass Petra **ihn_i** mag?
 of which:DAT painter think you that Petra him likes
 'Which painter do you think that Petra likes?'
 b. ein Maler, **von dem_i** er glaubt, dass Petra **ihn_i** mag
 a painter of who:DAT he thinks that Petra him likes
 'a painter who he thinks that Petra likes'

¹ Apart from speakers with a Swabian or Bavarian background, dialectal influence becomes more and more marginal in Germany, in most cases being restricted to pronunciation and particular lexical items. Many speakers do no longer learn a dialect as their native language, but a variety that is very close to Standard German. Things are different in Switzerland, where the first language acquired is a dialect. The Swiss version of Standard German is referred to as *Schweizerhochdeutsch* 'Swiss Standard German', and arguably shows more traces of the dialectal background of the speakers.

² However, both the scope-marking construction as well as extractions from V2 complement clauses do not cover the same range of verbs; both of them are incompatible with volitional and factive verbs, see McDaniel (1986) for scope marking and Müller & Sternefeld (1995) for V2-extraction.

- c. **Von dem Maler_i** glaubt er, dass Petra **ihn_i** mag.
 of the:DAT painter thinks he that Petra him likes
 'The painter he thinks that Petra likes.'

This construction is also available to all speakers of German and its varieties and therefore not an alternative in the strict sense. However, there is one domain where it *is* an alternative, namely in the domain of relativization in the standard language: While sometimes claimed to be acceptable (Grewendorf 1988), I know of no speaker of Standard German that actually accepts (1b). Consequently, all that speakers of Standard German have at their disposal is (4b).³ It is compatible with a wide range of matrix verbs.

The situation in Dutch is similar though not identical. First of all, the other alternative strategies do not exist. There is no Scope Marking in Standard Dutch and no embedded V2. The acceptability of long A'-movement is generally taken for granted, but at least in the domain of relativization and topicalization, there is a certain preference for the same alternative strategy as in German: The extracted constituent is preceded by a preposition, and a personal pronoun appears in the (alleged) extraction site:

- (5) a. **Van welk boek_i** denk je dat Piet **het_i** leuk vindt?
 of which book think you that Peter it cool finds
 'Which book do you think that Peter likes?'
- b. het boek **waar_i-van** ik denk dat Piet **het_i** leuk vindt
 the book which-of I think that Peter it cool finds
 'the book I think Peter likes'
- c. **Van dit boek_i** denk ik dat Piet **het_i** leuk vindt.
 of this book think I that Peter it cool finds
 'This book I think Peter likes.'

The following sections are devoted to an analysis of this alternative construction in both languages.

2. Long-distance movement or binding?

At first, at least two options suggest themselves: One could take the functional similarity to long A'-movement seriously and claim that there actually is long A'-movement, albeit in disguise. The preposition would be inserted as a case-marker, and the coreferential pronoun would be a resumptive.

Alternatively, one could argue that the matrix PP is actually a complement of the matrix verb, and the pronoun in the dependent clause is bound. Both analyses have their advantages and disadvantages, and I will discuss them in turn.

³ Dialects differ from the Standard language. Zurich German (cf. Salzmann in prep), for instance, allows long-distance relativization; interestingly, however, long relativization requires resumptive pronouns in the extraction site while long wh-movement or topicalization does not.

2.1. Long-distance movement

2.1.1. Reconstruction

The major argument in favor of a long A'-movement analysis comes from reconstruction effects for both Principle A⁴ and Variable Binding:

- (6) a. das Bild von **sich_i**, von dem ich glaube, dass **Peter_i** *es* sehr mag
 the picture of self of which I think that Peter it very likes
 'the picture of himself_i that I think Peter_i likes very much'
- b. die Periode **seines_i** **Lebens**, von der ich glaube,
 the period his:GEN Life:GEN of which:DAT I believe
- dass **keiner_i** gerne *daran* denkt, ist die Pubertät.
 that no_one likes_to about_it thinks is the puberty
 'The period of his_i life I think no one_i likes to remember is puberty.'

It seems thus as if the content of the antecedent is available at the position of the pronoun (italicized). This would be unexpected if the link between antecedent and pronoun were a mere binding relation.

2.1.2. Problems: unorthodox movement/chain

However, if a movement approach is taken, a number of problems arise:

- i) The head (PP) and the tail (DP) of the chain would differ categorially.
- ii) The role of the preposition is unclear; even if it is considered a case-marker similar to English *of*, it is unclear why the DP should need case because it is case-marked in the dependent clause already. It rather seems as if it receives two cases in violation of the usual wellformedness conditions on Chains.
- iii) The preposition actually projects a PP so that movement would take place into a non c-commanding position.
- iv) The use of the resumptive seems unmotivated: if there is long extraction, no resumptive should be necessary to rescue the derivation (as an intrusive pronoun, see Chao & Sells 1983).

2.2. Binding

2.2.1. There is a base construction

The first argument in favor of a binding approach comes from the fact that there seems to be a base construction for the alternative strategy where the PP is in situ:

- (7) Ich hoffe von **diesem** **Buch_i**, dass **es_i** ein Erfolg wird.
 I hope of this:DAT book that it a success becomes
 'I hope that this book will be a success.'

Even though this construction is a little odd for many speakers, it is certainly grammatical. And it clearly suggests that the PP is base-generated in the domain of the matrix verb because movement to this position in the middle field from the subordinate clause is unlikely given the

⁴ It is important to note at this point that anaphors in German and Dutch cannot be used logophorically. Reconstruction effects for Principle A therefore do constitute important evidence for movement, cf. Kiss (2003). In the corresponding Dutch examples, the anaphor *zichzelf* is used.

2.2.2. Island-insensitivity

b. ein Mann, **von dem_i** ich glaube, dass du **<seine_i** Bücher> magst
 a man of who:DAT I think that you his books like:2s
 ‘a man whose books I think you like’

dass Peter **sie_i** auf die Waage bringt
 that Peter them on the scale brings
 ‘the many kilos I think Peter weighs’

For the same reason, idiom reconstruction is blocked; the matrix verb simply cannot take a non-referential complement:

- (11) *den Streich, von dem_i ich sagte, dass wir ihn_i
 the trick of which I said that we it
 unserem Lehrer gespielt hatten, fand ich ziemlich brutal.
 our:DAT teacher played had found I quite brutal
 ‘I found the trick that I said we had played on our teacher quite brutal.’

One might object that these restrictions simply follow from the referential nature of the pronoun, which forces the antecedent to be specific/referential. The data discussed so far would therefore not constitute any evidence that a theta-role is assigned in the matrix clause. The following contrast in meaning, however, suggests that a theta-role is involved:

- (12) a. Ich weiss von jedem Holländer_i, dass er_i ein Fahrrad hat.
 I know of every dutchman that he a bike has
 ‘I know about every dutchman that he has a bike.’
 b. Ich weiss, dass jeder Holländer ein Fahrrad hat.
 I know that every dutchman a bike has
 ‘I know that every dutchman has a bike.’

The two constructions differ w.r.t. evidentiality: The first example implies direct evidence, giving the (nonsensical) interpretation that the speaker has checked every single Dutchman for a bike. The second example has no such implication. The knowledge may simply be the result from statistics. I see no way to derive this difference from the definiteness of the pronoun and conclude that there is theta-role assignment to the matrix object.

2.2.4. Unboundedness vs. selection

We saw in (8) above that the construction is in principle unbounded and can violate any kind of island. If this is correct, it comes as a surprise that the following example is ungrammatical if one assumes that all there is is long-distance movement from the embedded clause:

- (13) *der Mann, von dem_i ich mich freue,
 the man of who:DAT I me be_happy
 wenn ich ihn_i sehe
 if I him see
 ‘the man who I’m happy when I see’

Interestingly, the example improves to full grammaticality once a matrix verb is chosen that is compatible with an *von*-PP. This clearly suggests that the PP is selected by the matrix clause:

- (14) der Mann, von dem_i ich glaube, dass ich mich freuen würde,
 the man of who:DAT I think that I me be_happy would
 wenn ich ihn_i sähe
 if I him saw
 ‘the man who I think that I would be happy if I saw’

2.2.5. The “resumptive” behaves more like a pronoun

In German and Dutch something peculiar happens if a pronoun referring to an inanimate antecedent is governed by a preposition. Instead of preposition + the regular pronoun the whole complex is spelled out as a so-called pronominal adverb consisting of an element *da/daar* ‘there’ + adposition, the locative-like element replacing the regular pronoun:

- (15) Ich habe Probleme **da**-mit.
 I have problems there-with
 ‘I have problems with it.’

Interestingly, the same holds for the alternative strategy if the trace of an inanimate antecedent is governed by P: The whole complex is spelled out as a pronominal adverb, just like in normal clauses:

- (16) Das Zeugnis, **von dem_i** ich glaube, dass du sehr zufrieden **da_imit** bist
 the report of who I believe that you very satisfied there-with are
 ‘the report who I think you are very satisfied with’

The symmetry goes even further: the pronoun can strand the postposition in both cases:

- (17) a. Das Zeugnis, **von dem_i** ich glaube, dass du **da_i** sehr zufrieden[mit **t_i**] bist.
 the report of who I believe that you there very satisfied with are
 ‘the report who I think you are very satisfied with’
 b. weil du **da_i** sehr zufrieden [mit **t_i**] bist.
 because you there very satisfied with are
 ‘because you are very satisfied with it’

It seems thus that the alleged resumptive behaves more like a pronoun than a spelled out trace.

2.3. Intermediate Summary

The evidence for either approach seems equivocal at this point. The semantics, the unboundedness, as well as the postposition facts seem to suggest a binding approach, whereas reconstruction favors a movement approach. We are thus faced with a paradoxical situation: reconstruction with a lot of evidence for binding, but not necessarily for movement.

The key to a possible solution will actually come from another paradox, to be discussed in the next section.

3. A–A'-asymmetries: a further paradox

So far, I have mainly focused on the properties of the alternative strategy with the PP fronted. Interestingly, there are systematic asymmetries depending on the position of the PP. When it is fronted, the construction shows properties of A'-movement, when it is in situ, the properties are more reminiscent of an Control-like A-relation between the antecedent and the pronoun.

3.1. Subject orientation

When the PP is in-situ, the coreferential pronoun must be the subject. Object or possessor orientation leads to ungrammaticality:⁵

- (18) a. Ich will/glaube/hoffe **von Peter_i**, dass **er_i** Maria heiratet.
 I want/believe/hope of Peter that he Mary marries
- b. *Ich will /glaube/hoffe **von Peter_i**, dass Maria **ihn_i** heiratet.
 I want/believe/hope of Peter that Mary him marries
- c. *Ich will/glaube/hoffe **von Peter_i**, dass **seine_i** Mutter gesund wird
 I want/believe/hope of Peter that his mother healthy becomes
 ‘I want/believe/hope of Peter that his mother will recover.’

Once the PP is in an A'-position, object (and possessor) orientation suddenly becomes possible:

- (19) a. der Mann, **von dem_i** ich will/glaube/hoffe, dass **er_i** Maria heiratet
 the man of who:DAT I want/believe/hope that he Mary marries
- b. der Mann, **von dem_i** ich will/glaube/hoffe, dass Maria **ihn_i** heiratet
 the man of who:DAT I want/believe/hope that Mary him marries
- c. der Mann, **von dem_i** ich will/glaube/hoffe dass **seine_i** Mutter gesund ist
 the man of who:DAT I want/believe/hope that his mother healthy is

3.2. Unboundedness/locality

With the PP in-situ, the pronoun must occur in the immediately subordinate clause:⁶

- (20) *Ich glaube **von Peter_i**, dass du dich freust, dass **er_i** Nicht-Alkoholiker ist.
 I believe of Peter that you you be-happy that he non-alcoholic is

No such restriction is observed if the PP is preposed:

- (21) der Mann, **von dem_i** ich glaube, dass du dich freust, dass **er_i** Nichtalkoholiker ist
 the man of who I believe that du self are:happythat he non-alcoholic is

3.3. Intermediate summary

These observations lead to quite paradoxical conclusions: The in-situ construction is in some sense Control-like in that there is obligatory coreference between a matrix argument and the subject of the dependent clause. It is an A-like relation in that it is bounded and cannot skip

⁵ Marcel den Dikken (p.c.) has pointed out to me that object orientation becomes better with counterfactual modals like *zou moeten/müsste* ‘would have to’. Such modification is not necessary in the A'-cases so that the resulting contrast is still clear. In what follows, I will ignore the effect of modals.

⁶ Marcel den Dikken (p.c.) has drawn my attention to the fact that for this argument to go through it is crucial that the embedded verb is incompatible with a *von*-PP. Otherwise, one could argue that what goes wrong in (20) is not the binding but the scrambling from the embedded clause into the matrix clause, which is known to be impossible in German, cf. Sternefeld & Müller (1993).

intervening DPs. Once the PP is fronted, the construction has all the hallmarks of A'-movement: it is unbounded, has free orientation, and can skip intervening DPs. If the A'-like construction is based on the A-like one, these asymmetries are profoundly mysterious and unexpected. However, there is indeed strong evidence that there is just one basis for the construction: When the PP is fronted, the adposition can be stranded (in Dutch), showing that the P originates in the domain of the matrix verb (22b):

- (22) a. Het boek **waarvan_i** ik **t_i** denk, dat Piet **het_i** leuk vindt
 the book where_of I think that Peter it cool finds
 'the book that I think Peter likes'
- b. Het boek **waar_i** ik **t_i** **van** denk, dat Piet **het_i** leuk vindt
 the book where I of think that Peter it cool finds
 'the book that I think Peter likes'

Therefore, one cannot argue that a sentence like (22a) is derived by directly moving out of the embedded clause into the matrix Spec, CP (with the preposition inserted there for some reason); if there is movement it has to touch down in the domain of the matrix verb where the preposition originates. In the next section, I will try to propose a solution that resolves the A-A'-paradox by combining aspects of both the movement and the binding approach.

4. Combining the two: pseudo-control as movement

4.1. Pseudo-Control vs. Control

In my view, the probably most interesting property of this construction is the fact that there is obligatory coreference between a matrix argument and an argument in its finite complement clause. This is remarkable considering the fact that both Dutch and German otherwise restrict this type of obligatory coreference to subjects of nonfinite clauses, then referred to as Control. That coreference is really obligatory is shown by the following example: a pure aboutness relation (such as part-whole between *PC* and *Computern*) is not sufficient, there has to be a coreferential pronoun in the complement clause.

- (23) ***Von Computern** glaube ich, dass jeder einen PC kaufen sollte
 of computers believe I that everyone a PC buy should
 'I believe of computers that everyone should buy a PC.'

Relating the construction to Control seems therefore justified, even though Pseudo-Control (especially with the PP ex-situ) differs in important respects from regular Control:

- i) finiteness: coreference is with a DP in a finite complement clause
- ii) subject orientation: the controlled DP is not necessarily the subject
- iii) locality: the controlled DP is not necessarily found in the immediately subordinate clause
- iv) grammatical relation: the Controller is always a matrix object, never a matrix subject
- v) the types of verbs found in this constructions form a completely different class, including epistemic, but also volitional verbs.

4.2. *Pseudo-control as movement*

There has been a lot of debate about the status of PRO within the Minimalist framework. The arguably strongest position was advanced by Hornstein (2000), who proposed that Control is actually derived by movement: He assumes that the matrix verb has a theta-feature that attracts the subject of the non-finite complement clause. Movement into theta-positions is therefore legitimate, and the Theta Criterion in its traditional form is given up. This sort of approach has been rejected by many (Landau 2002, Culicover & Jackendoff 2001) on both conceptual and empirical grounds. As we will see below, much of that criticism does not affect the Pseudo-Control construction discussed here because its properties are significantly different. I will therefore ignore these objections and propose a movement account to Pseudo-Control as well. I will further assume that there is only one basis for the constructions; the differences that depend on the position of the PP follow from independent principles.

More concretely, I assume that the matrix verb has a theta feature that needs to be checked; this feature simply probes into the complement clause and attracts the closest DP. In case an operator feature is involved as in the more A'-like cases, I make the uncontroversial assumption that matrix C has an operator feature (wh/rel/top). The following sections discuss the derivations of both the A-like as well as the A'-like cases.

4.2.1. *A-like: no operator feature: PP in-situ*

If no operator feature is involved, the derivation is straightforward: The matrix verb has a theta-feature and probes into the complement clause. The embedded subject is the closest DP and is consequently attracted:

$$(24) \quad [_{VP} \mathbf{DP}_i \ V_{\text{theta/case}+P} \ [_{CP} \ C \ [_{IP} \mathbf{DP}_i \ [_{VP} \ V \]]]]$$

Ignoring the role of the preposition and possible double case-marking for the moment (but see below for discussion of these issues), the prediction is very clear: If no operator feature is involved, the embedded subject will always be the closest DP and will be attracted into the matrix clause. This straightforwardly captures the minimality condition and the subject orientation.

What about adjuncts higher than the subject? To the extent that they are found above IP in embedded clauses in German, they will not be attracted because they need no theta-roles and cannot check theta-roles (cf. Hornstein 2000:79).

4.2.2. *A'-like: operator feature: PP fronted*

Things are quite different if a DP has an operator feature: Following standard assumptions, it will undergo successive-cyclic A'-movement; once it reaches the intermediate Spec, CP, it counts as closest for the purposes of the matrix verb and will consequently be attracted (for questions about improper movement see below). This explains why it can skip possible intervening targets. So the DP moves to the matrix verb to check the theta feature, and eventually to Spec, CP to check the operator feature:

$$(25) \quad [_{CP} \mathbf{DP}_{op} \ C_{op} \ [_{VP} \mathbf{DP}_{op} \ V_{\text{theta/case}+P} \ [_{CP} \mathbf{DP}_{op} \ C \ \dots \ \mathbf{DP}_{op} \ V \]]]]$$

4.3. Comparison: movement vs. binding

While the derivations sketched in the previous sections raise many questions, the approach proposed has a compelling advantage: It allows for a very natural statement of the coreference relations, whereas a binding approach would have to resort to a very unnatural statement:

Binding:

- i) If antecedent in-situ: coreference with subject of directly embedded clause
- ii) If antecedent A'-moved: coreference with any DP in the subordinate clauses

Movement:

- i) Coreference with the structurally closest c-commanded DP

While the generalization under a binding approach seems arbitrary, the generalization under a movement approach is very straightforward. I take this to be strong evidence in favor of the approach advocated here. As mentioned before, this approach raises a number of intricate issues that will be addressed in the next section.

5. The technicalities

5.1. Movement to a non c-commanding position

So far I have ignored the preposition *von/van* 'of' in the matrix clause. Clearly, if it projects to a PP, movement out of the embedded clause would imply movement to a non c-commanding position. This is ruled out on most approaches to movement, except for those that accept Sideward Movement as in Nunes (2001). Given concerns about the power of such a type of movement, I will try to accommodate the proposed movement step within more conventional assumptions.

A first relevant observation is the fact that as far as binding is concerned there is c-command out of the PP: The following examples illustrate this for Principle C, Variable Binding and NPI-licensing:

- (26) a. *Ich glaube von ihm_i dass Peter_i intelligent ist.
 I believe of him that Peter intelligent is
- b. Na 5 jaar in Nederland weet ik van elke_i Nederlander
 after 5 years in N. know I of every Dutchman
 dat hij_i een fiets heeft.
 that he a bike has
 'After 5 years in the Netherlands, I know of every Dutchman that he has a bike.'
- c. Ik denk van geen Nederlander_i
 I think of no Dutchman
 dat hij_i ook maar een euro zou verspillen
 that he not even a euro would squander
 'I believe of no Dutchman that he would squander even a single euro.'

In an attempt to resolve constituency conflicts Pesetsky (1995) proposed that individual sentences have more than one phrase structure. For the purposes of binding, he assumes a Cascade structure in which PP-internal DPs actually c-command out of it:

- (27) give [_{PP} candy [_{P'} to [_{PP} none of the children [_{P'} in any library]]]]

While this gives the desired result for the binding facts, it cannot be used to account for the movement step to a non c-commanding position because Pesetsky assumes a Layered constituency structure for movement where the P forms a constituent together with its complement.

Another possibility would be merging the preposition outside the vP as in recent work by Kayne (1998). However, one is then faced with the problem of how to get both linear order and constituency of P+DP right. If the DP moves to Spec, PP, it precedes P unless P undergoes further movement to some head. But then, P + DP do not form a constituent. The whole vP (the complement of P) would have to undergo movement to the specifier of the head where P has moved. The PP would then be stranded at the end of the clause, forming a constituent but being in the wrong surface position. Clearly, the PP would have to undergo remnant movement to the left of vP to reach the correct surface position.

Most of these movement steps would be completely unmotivated except for restoring word order. I take such an approach to be utterly undesirable and non-explanatory. Instead I propose to take the c-command relationship in (26) seriously. Even then, there is still a straightforward solution to the problem if one analyzes the preposition as a pure case-marker, as a realization of inherent case. There is some independent support for this from both languages, things being more transparent in German: the preposition *von* 'of' is used as a case marker inside DPs to replace the genitive. Genitive case is subject to special morphological licensing conditions in German (Gallmann 1998): Genitive on an N is only licensed if it is morphologically realized on D (determiners, articles etc.) or A of the same DP. With bare plurals, however, this is not possible. As a last resort, the preposition *von* 'of' is inserted, assigns dative case to the DP and satisfies the Case filter or whatever regulates the distribution of DPs:

- | | |
|---------------------------|-----------------------------------|
| (28) a.*die Sorgen Mütter | b. die Sorgen von Mütter-n |
| the worries mothers | the worries of mothers-DAT |
| ‘the worries of mothers’ | ‘the worries of mothers’ |

Even though there are good reasons to assume that *von/van* is just a case-marker, it is still not obvious how this is supposed to be handled given a Minimalist Framework. If one takes the Inclusiveness Condition (Chomsky 1995) seriously, simply inserting *von* in the derivation would be problematic unless one can make a case to relate it to *do*-support, which Chomsky (1995) claimed to be a language specific option allowed by the Computation. Instead, I prefer to treat *von* as part of the numeration. Following Bayer et al. (2001) I analyze prepositions as part of the extended domain of N, heading a KP. The DP is therefore base-generated together with an extra KP shell and eventually checks the (inherent) case feature of the matrix verb. Clearly, a KP is incompatible with possible other (structural) cases the DP/KP has to check in the subordinate clause. This will be dealt with in the section on double case marking below.

Note incidentally that something similar seems to be happening in an exceptional raising construction in Irish, discussed in McCloskey (1984) and Stowell (1989):

- (29) Is féidir le Ciarán [teach a cheannach]
 cop.prs able with C. a_house to buy
 ‘Ciaran can buy a house.’

Both authors agree that there is raising of *Ciarán* out of the embedded clause and that it is assigned inherent case (*le* is like *von* in our examples) by the matrix verb. If there is raising to object as claimed by McCloskey (1984), the construction would be very similar to Pseudo-Control. Even though this construction is highly marked, it is obviously made available by UG.

Finally, as pointed out to me by Marcel den Dikken (p.c.), such a movement might also be necessary for verbs that allow Pseudo-Passive in English. When used in their active form, one might expect covert object shift for case checking.

5.2. A-movement out of finite clauses (Tensed S Condition)

Another problematic aspect of the proposed derivation is A-movement out of a finite clause (hypperraising) in the Control-like cases as sketched in (24) (it does not apply to the A'-cases with movement to Spec, CP). All versions of Generative Grammar have more or less excluded such a derivation. In earlier models, it was the Tensed S Condition, an explicit constraint against moving out of it, in GB it was the binding theory that ruled out such movement because the subject trace could not be antecedent governed across a finite CP. Within the Minimalist Program it is no longer all that clear how these effects should be captured. A typical assumption is that elements whose uninterpretable (Case) features have been checked are not accessible for further operations, viz. the Activity Condition (Chomsky 1995 etc.). Applied to Pseudo-Control, one would have to stipulate that for some reason, DPs are not deactivated in this case. This would be difficult to implement because the embedded T does not stand in a direct relation to the matrix verb. While it is possible for a verb to subcategorize for a particular type of clause, it is usually not assumed that it also directly determines the type of T of the complement clause. Furthermore, Nevins (2004) convincingly shows that elements that have all their A-related features (case, phi-features) checked are still accessible for further A-movement (esp. EPP). A very clear example are quirky subjects which check their case within the vP and then move further on to the subject position to check the EPP. A compelling example are adversity impersonals in Russian, which show that even DPs that have received structural case are still accessible to further operations (Nevins 2004:8, his ex. 25):

- (30) Soldat ranilo puljami
 soldiers:ACC wounded:PST.NONAGR bullets:instr
 'The soldiers were wounded by the bullets.'

According to Nevins (citing Baylin 2003), the accusative phrase is in an A-position: it can bind the Spec-T-oriented anaphor *svoj* and it does not induce Weak Crossover violations. Moreover, we are dealing with a structural argument because it undergoes the genitive of negation, which inherent accusative does not. Since A-checking does not necessarily lead to deactivation, the Activity Condition is generally inadequate to capture the usual ban on A-movement out of finite clauses.

Alternative proposals have emerged in recent discussions about the Copy Raising construction: Given the right complementizer, raising out of finite clauses is fine in English, German, Dutch and many other languages.⁷

⁷ In case there is movement at all and not just binding between the subject and the pronoun. This is a contested issue, cf. Runner & Potsdam (2001) vs. Fuji (2004).

- (31) **Peter** sieht aus, als ob **er** müde ist.
 Peter looks out as if he tired is
 'Peter looks like he's tired.'

Furthermore, in several languages, raising to object out of a finite clause is possible without an overt pronominal copy in the dependent clause, cf. Moore (1998) for a discussion of Turkish. There have been two useful accounts of the transparency of such complements:

- i) The Phase account: the complement clause is not a Strong Phase: Runner & Potsdam (2001), Nevins (2004)
- ii) The Minimality account: the C head of the complement clause does not have phi-features so that the MLC does not block raising: Fujii (2004)

On the Phase account, everything inside the embedded CP remains accessible because the C head does not induce a strong phase, it would be the C-analogue of a defective (non-finite) T. This can be straightforwardly applied to Pseudo-Control. Whereas a normal *that* does induce a Strong Phase, a *that*-clause selected in a Pseudo-Control configuration does not so that the subject can be extracted as proposed in (24). This would have to be stated in the lexical entry of the matrix verbs.

On the Minimality account, *that* normally has phi-features, and by being closer to the matrix verb it blocks attraction of the subject. In Pseudo-Control and Copy Raising, the complementizer has no phi-features so that as a consequence attraction of the subordinate subject is possible.

So far it seems as though both approaches are equally successful. However, there is a potential further complication: As discussed below, I assume that movement from Spec, CP to a matrix A-position is possible (in violation of the ban against Improper Movement) in order to derive the A'-like cases of Pseudo-Control. But if this is possible, one could think of a derivation where the subject of a finite *that*-clause moves first to Spec, CP of the embedded clause, thereby reaching the escape hatch of the CP phase. Such a movement step might simply be triggered by the needs of a higher Probe (T, v) to get its feature checked. On a phase account, this seems inevitable. On the Minimality Account, this problem does not arise because the C equipped with phi features blocks movement across it. It seems therefore that only a Minimality approach can successfully restrict the possible types of raising.⁸

Still, given that the complementizer is the same in both cases, this solution is somewhat stipulative. However, there is one independent fact that might lend some credibility to it: In German, Verbs that allow a V2 complement lose this property as soon as they are used in Pseudo-Control:

- (32) Ich glaube, **Peter** ist intelligent.
 I think Peter is intelligent
- (33) *Ich glaube **von Peter_i**, **er_i** ist intelligent.
 I think of Peter he is intelligent

This clearly suggests that despite the superficial similarity, the heads of the complements are different. Whether this can be used to derive the difference in transparency is unclear because normally it is the possibility of taking a V2 complement that correlates with transparency (bridge-verb property) and not the other way around. I will leave this issue unresolved here.

⁸ A Phase account supplemented with the Minimality account would do as well, of course, but would be redundant.

5.3. Improper movement

The movement step from Spec, CP to a theta position within the matrix vP in the A'-like derivation violates the Ban on Improper Movement (BIM). Given a Hornsteinian framework, the BIM plays no role, its effects are derived differently. One possibility was already suggested in the previous section: raising out of a finite clause via the embedded Spec, CP is in principle possible, but ruled out by minimality.⁹ However, this does not have to mean that the BIM needs to be given up completely. What is special about the derivation at hand is that it involves intermediate landing sites whose status has generally become quite neutral within Minimalism, especially the role of Spec, vP in strongly derivational frameworks (e.g. Epstein et al. 1998, Chomsky 1998 etc.). It is both the locus of object case checking and acts as a landing site for successive cyclic A'-movement. In other cases, Improper Movement still seems to be a useful concept. Müller (1995) for instance has argued that different types of A'-movement may not be mixed. For instance, scrambling (if analyzed as A'-movement) cannot be followed by wh-movement in a language like German. This accounts for the absence of scrambling across finite clauses (in German). These effects can still be derived if the BIM only penalizes movement between positions where strong/EPP features are checked. This certainly holds for the scrambling case. Once an A'-feature is checked, further movement to an A'-position is ruled out.¹⁰ Assuming this is correct, we have an immediate explanation for the grammaticality of the following example:

- (34) Ich weiss von **Peter**_i, was **er**_i zum Frühstück mag.
 I know of Peter what he for breakfast likes
 'I know what Peter likes for breakfast.'

Here, *was* 'what' has moved to the Spec, CP of the embedded clause. According to the generalization in section 4.3, it should become the Controller of the construction because it is the closest element to the matrix verb. However, this is not the case in (34). One way of accounting for this would be to rely on the distinction between final and intermediate landing site. Since the wh-item checks an A'-feature in that position (the embedded Spec, CP), further movement is prohibited. The closest mobile element now being the embedded subject, *Peter* is attracted and moves to the matrix vP. One may ask why there is no (defective) intervention as in:

- (35) *How do you wonder who solved the problem?

Who blocks the attraction of *how* even though *how* has its feature checked and is no longer accessible for movement. So in other words, the reason why there is no intervention in (34) cannot simply be due to the fact that *was* has reached its final landing site for A'-feature checking. Rather, because the final landing site is an A'-position, it is only incompatible with further A'-movement, but can be ignored/skipped for the purposes of A-movement.

Note that this implies that A-checking has a different effect than A'-checking. A'-checking leads to deactivation of an XP, intervention is still possible, but only for A'-relations. A-checking, on the other hand, does not lead to deactivation, as we have seen in the case of Copy Raising and Pseudo-Control.

⁹ Claiming alternatively that the matrix verb simply selects a CP whose Spec is not an A'-position only works for movement out of the immediately embedded clause, but not for examples like (21).

¹⁰ Clearly, something needs to be said about derivations involving a prolific left periphery. If movement to a focus projection proceeds via FinP, FinP would have to count as a neutral position. Similarly, wh-topics (if they exist) would require a special account.

5.4. Double case-marking and resumption: Boeckx (2003)

There are still two unresolved issues:

- i) Why is the copy in the dependent clause realized as a pronoun?
- ii) How can a DP check two cases?

In what follows, I will show that both of these questions receive a straightforward answer given Boeckx' (2003) theory of resumption. There is no double case-marking, and the pronoun is a resumptive pronoun resulting from a base-generated Big-DP. At the heart of Boeckx' system lies a general constraint on Chains:

- (36) *Principle of Unambiguous Chains* (Boeckx 2003:13): a Chain may contain at most one Strong Occurrence (Position where strong/EPP feature is checked)

Chains with more than one Strong Occurrence are frequent. They obtain for instance when a wh-object also undergoes movement for case checking. According to Boeckx such chains must be disambiguated in order to comply with (36). There are two strategies of disambiguation: The first consists in establishing an Agree relation between Strong Occurrences, the second in resumption, which is modeled as a Big-DP.

As for the Agree relation between Strong Occurrences (cf. Boeckx 2003:76), the concept is not fully made clear; it is certainly of a very abstract type. What seems clear is that such an Agree relation is only possible between probes that are sufficiently different. In the case of A-movement, this is usually not the case: there are just two finite Ts. In such a case, a different strategy, namely resumption, is necessary (see below). Not all C-probes can establish such an Agree relation. There are agreeing and non-agreeing ones, the former largely corresponding to phrasal operators, the latter to head-like/zero operators.

The second strategy is more straightforward: By forming a Big-DP and extracting the wh-phrase from its specifier, no ambiguous chain obtains: Case is checked by the whole Big-DP whereas the operator feature is checked by the antecedent in the Spec:

- (37) $[_{CP} \text{ DP}_{op} \quad C_{op} \quad V \quad [_{DP:Case} \text{ DP}_{op} \quad [D' \quad D_{case}]]]$

There are two chains altogether, one trivial chain consisting only of the Big-DP, and a non-trivial chain consisting of the copy inside the Big-DP and the copy in the operator position. Both chains satisfy (36) because they have only one Strong Occurrence each.

When we apply this approach to Pseudo-Control, we have two or three Strong Occurrences, depending on whether the PP is fronted or not. When the PP is fronted, C can establish an Agree relationship with the matrix case checking position to reduce the number of Strong Occurrences to two, which is still too much. To fully disambiguate the structures, resumption is needed because two A-positions cannot establish an Agree relation between each other.¹¹ So it is again the Big-DP that checks the lower case whereas the antecedent inside the specifier moves on to receive case, check theta-features and eventually check the operator feature on the matrix C:

- (38) $[_{CP} \text{ DP}_{op} \quad C_{op} \quad [_{VP} \text{ DP}_{op} \quad V_{\theta/case} +P \quad [_{CP} \text{ DP}_{op} \quad C \quad \dots \quad [_{DP:Case} \text{ DP}_{op} \quad [D' \quad D_{case}]]] \quad V]]]$

So far I have assumed without argument that Case is actually a strong/EPP feature in Standard German/Dutch. This is not unproblematic because indefinite subjects can stay within the vP, and it is unclear to what extent there is movement for case at all in these languages. However,

¹¹ Under the assumption that C can establish an Agree relation with only one other Probe.

at the same time, it is also a fact (e.g. Diesing 1992) that specific subjects and objects move out of the vP. This accords well with the observation made in section 2.2.3 that only specific DPs can satisfy the theta-feature in Pseudo-Control. Assuming that the Big-DP headed by a pronoun is specific as well, it will undergo movement to a position where a strong/EPP feature is checked.¹² Therefore, all case positions count as Strong Occurrences. The same holds for chains that terminate inside a PP, which according to Boeckx (2003:79) count as strong as well:

- (39) **von Peter_i** glaube ich, dass ich mit **ihm_i** glücklich wäre.
 of Peter think I that I with him happy were
 ‘With Peter, I think, I would be happy.’

Coming back to the question of how to represent inherent case without violating the c-command condition on movement: Since the Big-DP checks a different case than the antecedent in its Spec, nothing rules out base-generating the antecedent with *von* in its extended projection, which will eventually be checked by the matrix V. The derivation then looks as follows:

- (40) [_{CP} [_{KP} **von DP_{op}**] C_{op} [_{VP} [_{KP} **von DP_{op}**] V_{theta/case} [_{CP} [_{KP} **von DP_{op}**] C [_{DP:Case} [_{KP} **von DP_{op}**]
 [D' D_{case}]] V]]]

5.5. *Move over merge?*

The derivation sketched above violates the economy principle Merge over Move: Why is it not possible to merge an object (from the numeration) directly into the matrix object position instead of moving an argument from the embedded clause? Violations of economy principles are only allowed if the more economical derivations do not converge. This is indeed the case in the case at hand: Suppose instead of moving the closest DP, a different DP is selected from the numeration and inserted in the matrix object position. While this respects Economy, the antecedent of the pronoun will remain caseless in such a derivation, and as a result the derivation crashes. Therefore, the less economical derivation emerges as the only possible solution.

5.6. *Unboundedness/extraction out of islands?*

Given the island insensitivity of Pseudo-Control discussed in section 2.2.2 a movement approach is confronted with properties usually absent from movement. It is a well-known fact that in many (but not all, cf. Boeckx 2003:108ff.) languages that employ resumptives, islands can be freely violated. There have been essentially two approaches: The predominant view is that in those cases, resumptives are only used to rescue an otherwise illicit derivation. This is referred to as intrusion (Chao & Sells 1983) or as true resumption (Aoun et al. 2001). Such derivations do not involve movement but base-generation of an operator in the operator position that binds a pronoun inside the island. The only approach to my knowledge that assumes movement out of islands is Boeckx (2003). His approach to resumption attempts to unify all types of resumption and treats resumption within islands on a par with resumption in

¹² If the antecedent subextracts from the Big-DP after it moved to the middlefield, one expects a CED violation, contrary to facts. A possible alternative derivation that avoids this problem involves first subextraction of the antecedent with subsequent remnant movement of the Big-DP to a position above the A'-moved antecedent (to respect Cyclicity), which in turn moves across the Big-DP.

non-island configurations. On his account, movement out of islands is possible under Match, but without Agree. More precisely, this means that islands can only be voided if the C-probe is a so-called non-agreeing complementizer, roughly a non-phrasal one. Given that the German operator elements are phrasal we do not expect that movement out of islands is possible. This is confirmed by the fact that there are no reconstruction effects into islands:

- (41) a. *das Foto von **sich_i**, von dem ich glaube, dass du
the picture of self of which I believe that you

den **Mann_i** kennst, **der_i** es gemacht hat.
the man know who it taken has

Lit.: 'the picture of himself_i that I think you know the man who_i took'

- b. ?-??das Foto von **sich_i**, von dem ich glaube, dass du
the picture of self of which I think that you

dich freuen würdest, wenn **Peter_i** es veröffentlichen würde.
self be_happy would if Peter it publish would

This shows that these examples require a different derivation than the non-island cases. Even though there is no difference on the surface, we find the usual contrast between apparent resumption (with movement effects) and true resumption (no movement effects). But what would that derivation look like?

Suppose we follow Aoun et al. (2001) in that true resumption involves Bind, meaning demerging the antecedent when it cannot move out of the island, merging an empty pronoun instead and putting the antecedent back into the numeration, merging it not until the matrix C-probe is introduced. This would derive the lack of island effects, but it would not explain why the Operator phrase is also the controller. In fact nothing in this derivation would guarantee that it becomes the controller because any other DP could be merged to check the theta-features of the matrix verb. Another problem is more general and holds for all derivational approaches to true resumption, i.e. approaches that fix the violation right away during the derivation: If the pronoun is inserted at the point where the DP attempts to move out of an island, one is faced with the fact that the pronoun is often not inserted where the violation occurs, but normally in the lowest case/theta position, as in the following English example:

- (42) This is the **guy_i** I was wondering < why Jane said that she liked **him_i**>.

On a derivational account, the antecedent *guy* would undergo successive-cyclic A'-movement until it reaches the island boundary, i.e. up to either Spec, CP of the lowest clause or Spec, vP of *said* depending on what counts as a phase. In either case, no violation happens up to this point. Consequently, if the pronoun is inserted derivationally, one would expect it to surface in those positions:

- (43) a. *This is the **guy_i** I was wondering < why Jane said **him_i** that she liked **t_i**>.
b. *This is the **guy_i** I was wondering < why Jane **him_i** said that she liked **t_i**>.

Since that is contrary to fact, the derivational account seems to be on the wrong track. Only with a lot of non-trivial look-ahead would it be possible to derive the desired result: Once the argument is merged and its case is checked, the Bind operation would have to take place even

though it is not clear yet at this point that the DP will eventually attempt to move out of an island. Clearly, this seems very unattractive.¹³

Instead, I would like to propose a more representational approach to true resumption. Suppose that island constraints are Bare Output Conditions, constraints on the LF representation, and not derivational constraints.¹⁴ Consequently, the derivation proceeds freely, the operator phrase moves out of the island, ends up in the Spec, CP of the complement clause of the matrix verb and will consequently be attracted and become the controller. Finally, it moves to the matrix Spec, CP. Such a derivation explains why the antecedent necessarily becomes the Controller in Pseudo-Control, but yet does not explain the lack of reconstruction effects. When chains are evaluated at LF, the locality violations are diagnosed. As a last resort, a pronoun can be merged to replace the copy of the antecedent. As a consequence, if something like *picture of himself* is replaced by *it* no binding will be possible anymore, the reading will be something like *John likes it*.

However, this still does not explain why the resumptive occurs in the lowest position, and why there cannot be reconstruction into those copies inside the island that are not covered by a pronoun. Consider an example with a reflexive, with all copies indicated:

- (44) **the picture of himself** that I was wondering <why John [_{VP} picture of himself assumes [_{CP} picture of himself that Peter [_{VP} picture of himself likes ~~picture of himself~~ → **it**]]]>.

So even if for some reason a pronoun is inserted into the lowest copy, there is another copy in the lowest clause that could be bound by *Peter*, and two in the *why*-clause where binding could be established with *John*.¹⁵

Clearly, to rule out any kind of binding, all other copies inside the island must also be somehow eliminated. It is not sufficient to stipulate that intermediate copies (traces) simply disappear (as in GB times, cf. Lasnik & Saito 1992) because that leaves us with no account for cases of binding in intermediate positions:

- (45) Which picture of himself does John think that Peter assumes that Daniel likes?

Since *himself* can refer to *Peter*, binding occurs in an intermediate position. Therefore, intermediate positions are important and cannot just be freely deleted. I will not attempt to derive the descriptively necessary steps here. From the point of view of locality, all copies inside the island are problematic. So somehow, they are all deactivated/deleted, to the exception of the lowest one which is replaced by a pronoun.¹⁶

5.7. Scrambling/pronoun fronting: when the subject is not closest

The approach to Pseudo-Control advanced here predicts that if for independent reasons the subject is not the closest element, other elements are eligible for Control. Such a constellation is more likely to obtain in German than in Dutch because only German has scrambling across

¹³ To be precise, Aoun et al (2001) do not assume – at least not for Lebanese Arabic – that the overt resumptive is the element actually inserted. Rather, as stated above, it is an invisible pronoun whereas the visible resumptive is base-generated as the head of a Big-DP so that the link between the overt element and the reparation of an island violation is given up. Nevertheless, as they state themselves, the demerging operation will have to target all copies within the island, clearly a non-trivial assumption.

¹⁴ Since I assume that the MLC is a derivational constraint, wh-islands will no longer fall under it.

¹⁵ Note that this also argues against a derivational account of binding, cf. Epstein et al. (1998).

¹⁶ Or by an Epithet, cf. Kroch (1981).

the subject. It is, however, difficult to determine whether there is scrambling at all because on the surface, all one sees is a pronoun, which tends to occur very high in the clause anyway. This means that the position of the pronoun might just as well be the result of pronoun fronting, which is not necessarily syntactic and thus does not form the input for the movement step to the matrix theta-position. Such sentences are perhaps a little better than the case where the object follows the subject, but they are still clearly worse than a regular case of subject Control; their impact therefore remains unclear.

- (46) ??Ich glaube von Peter_i, dass ihn_i Marie t_i mag
 I believe of Peter that him Mary likes

More straightforward are cases involving unaccusative verbs with an additional argument that is generated higher than the nominative argument. In such cases, it seems indeed acceptable to have coreference with the non-subject argument, thereby confirming the prediction of the approach advocated here:

- (47) Ich vermute von Peter_i, dass ihm_i Maria gefällt.
 I suspect of Peter that he:DAT Mary pleases
 'I suspect Peter likes Mary.'

6. Further advantages of a resumption approach

6.1. Specificity – scrambling – big-DP

A Big-DP approach to resumption in the construction at hand is particularly reasonable given the observation in Boeckx (2003) that resumptives normally relate to D-linked antecedents. Even though the semantics of specificity in this construction do not necessarily derive from the presence of the pronoun but are rather imposed by the matrix verb, they are directly compatible with it.

6.2. Postposition stranding

Assuming a Big-DP structure for resumption makes the postposition stranding data discussed in 2.2.5 more tractable, since there is a pronoun available in the structure, which can be expected to behave like a pronoun.

6.3. Opacity for extraction of other arguments

The movement analysis of Pseudo-Control makes an interesting prediction: If it is always the closest DP that is attracted by the matrix verb, every phrase with an operator feature that is to be attracted will also end up being the controller. Extracting the non-controller should be out. This is confirmed by the following example:

- (48) *Wen_i glaubst du von Peter_j, dass er_j t_i mag?
 Who:ACC think you of Peter that he likes
 lit.: 'Who do you believe of Peter that he likes?'

Such structures simply cannot be derived under the current analysis. Even more interestingly, the present analysis predicts that adjuncts can be operator-moved because they do not have phi-features and will therefore not be attracted by the matrix verb. Again, the prediction is borne out:

- (49) ? **Wie_i** glaubst du von **Peter_j**, dass **er_j** das Problem **t_i** lösen würde?
 how think you of Peter that he the problem solve would
 Lit.: 'How do you believe of Peter that he would solve the problem?'

7. Conclusion

In this paper, I have provided the first analysis of an alternative to long A'-movement in German and Dutch. Its paradoxical properties (movement/binding) require a synthesis of ideas that takes the base position of the PP in the matrix clause seriously while at the same time providing a means to model the reconstruction effects into the embedded clause. I have argued for A'-movement out of a finite clause to a theta-position in the matrix clause. While controversial and technically not innocuous, the major advantage of this approach is that it straightforwardly derives the generalization in 4.3 according to which it is always the structurally closest element that becomes the controller. Under a binding approach, this generalization is lost. Even though the Pseudo-Control construction seems to be unbounded, it becomes clear upon closer scrutiny that different derivations are necessary to account for the local and non-local cases. Despite its initial appeal for unboundedness, a binding approach cannot account for the reconstruction asymmetries.

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